09/119163

## ABSTRACT OF THE DISCLOSURE

1	An electrode for use in a plasma arc torch has an insert designed to improve the service
2	life of the electrode, particularly for high current processes. The electrode comprises an
3	elongated electrode body formed of a high thermal conductivity material and having a bore
4	disposed in a bottom end of the electrode body. The bore can be cylindrical or ring-shaped. An
5	insert comprising a high thermionic emissivity material, and in some embodiments, a high
6	thermal conductivity material, is disposed in the bore. The insert can be ringed-shaped or
7	cylindrical.

294JAC4527/52.A612527-1